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EXAMINER

SEKUL, MARIA LYNN

ART UNIT

PAPER NUMBER

4124

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/587,820

Applicant(s)

SEBIRE ET AL.

Examiner

MARIA L. SEKUL

Art Unit

4124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-893)
- Paper No(s)/Mail Date 28 Jul 2006

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: descriptions for label 101 "speech codec" are identified incorrectly as follows: paragraph 30, line 1 states "encoder", line 4 state "codes", and paragraph 31, line 9 states "codes". These references to label 101 should state "codec".

Appropriate correction is required.

Claim Objections

1. **Claim 3** is objected to because of the following informalities: in line 5 of the last paragraph, it appears that "third time division multiple access frames" should be "third number of time division multiple access frames". If that is the case, please make the correction by changing "a third time division multiple access frames " to - - - a third number of time division multiple access frames - - - .

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claim 1, 2, 6 and 9** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding **claim 1**, line 8, the phrase "certain layer of a protocol stack" renders the claim indefinite because it is unclear what "certain layer" is being referenced.

Regarding **claim 2**, the metes and bounds of the claim cannot be determined. The claim states functions of classifying and determining with no steps to perform the functions rendering the scope of the claim indeterminate.

Regarding **claims 6**, line 5, **and claim 9**, line 4, the phrase "according to certain rules" renders the claims indefinite because it is unclear what the "certain rules" are and whether they are part of the claimed invention.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-6, 8, 9 and 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims disclose a method that is not sufficiently tied to a machine or apparatus in order to be carried out, and therefore, is not a patentable process, machine, manufacture, or composition of matter.

Claim Rejections - 35 USC § 102

5. **Claim 1, 5, 6, 8, 9, 11** are rejected under 35 U.S.C. 102(a) as being anticipated **3GPP TSG RAN Working Group 1 Meeting No. 10 (Tdoc R1-00-0075), as cited in the Information Disclosure Statement (IDS) dated July 28, 2006** (hereinafter WG1#10).

As to **Claim 1**, WG1#10 discloses a method comprising:

"determining a maximum length of a silent period that is longer than predetermined regular intervals between upper-level scheduled silence-breaking

transmissions transmitted by a service that involves transmitting upper-level scheduled silence-breaking transmissions”.

WG1#10 discloses a silence period such that when a UE applies discontinuous transmission (DTX) it is forced to transmit a dummy burst at regular intervals. If no data has been transmitted, then a dummy burst shall be generated and transmitted in the next possible frame (p. 13, sec. 4.6, ¶ 3). Because the silence must be broken at these regular intervals if no data transmission has been detected, the silence period will never extend beyond the length of the regular interval making the regular interval the maximum length of the silence period.

“at a certain layer of a protocol stack governing communication over a telecommunication connection, observing the occurrence of silent periods and transmitting a dummy block over the telecommunication connection if the length of an observed silent period reaches said maximum length without an upper-level scheduled silence-breaking transmission or payload data having been transmitted”. WG1#10 discloses that the UE transmits the dummy burst at regular intervals if no data has been transmitted in the interval. As described in the previous step, the maximum length is the length of the regular interval so the dummy block of data will be transmitted if no data is received in the regular interval (p. 13, sec. 4.6, ¶ 4).

As to **claim 5**, WG1#10 discloses all of claim 1 and further discloses “controlling [the] maximum length of an observed silent period before transmitting a dummy block”. WG1#10 discloses determining the length of the silent period which is equivalent to

"controlling" the length of the silent period to be detected before transmitting the dummy block.

As to **claim 6**, WG1#10 discloses "a dummy block functionality adapted to transmit dummy blocks within a telecommunication connection according to certain rules, said dummy block functionality comprising a dummy block timing part adapted to determine a maximum length of a silent period that is longer than a predetermined regular interval between upper-level scheduled silence-breaking transmissions transmitted by a service that involves transmitting upper-level scheduled silence-breaking transmissions". WG1#10 discloses a silence period such that when a UE applies discontinuous transmission (DTX) it is forced to transmit a dummy burst at regular intervals. If no data has been transmitted, then a dummy burst shall be generated and transmitted in the next possible frame (**p. 13, sec. 4.6, ¶ 3**). Because the silence must be broken at these regular intervals if no data transmission is detected, the silence period will never extend beyond the length of the regular interval making the regular interval the maximum length of the silence period.

WG1#10 further discloses "and to trigger the transmission of a dummy block over the telecommunication connection if the length of an observed silent period reaches said maximum length without an upper-level scheduled silence-breaking transmission or payload data having been transmitted". WG1#10 discloses sending a dummy burst at regular intervals unless the silent period has been broken by a data transmission. (**p. 3, sec. 4.6, ¶ 4**).

As to **claim 8**, WG1#10 discloses "dummy block functionality forms part of a module for implementing Layer 1, 2 and 3 functionalities of a protocol stack governing communication over the telecommunication connection". WG1#10 discloses the dummy burst is filled with an arbitrary bit pattern and by setting the TFCI and TPC bits, which data would be set by a Layer 1, 2 or 3 protocol (**p. 13, sec. 4.6, ¶ 4**).

As to **claim 9**, WG1#10 discloses "means for transmitting dummy blocks within a telecommunication connection according to certain rules, said means for transmitting comprising means for determining a maximum length of a silent period that is longer than a predetermined regular interval between upper-level scheduled silence-breaking transmissions transmitted by a service that involves transmitting upper-level scheduled silence-breaking transmissions". WG1#10 discloses a silence period such that when a UE applies discontinuous transmission (DTX) it is forced to transmit a dummy burst at regular intervals. If no data has been transmitted, then a dummy burst shall be generated and transmitted in the next possible frame (**p. 13, sec. 4.6, ¶ 3**). Because the silence must be broken at these regular intervals if no data transmission is detected, the silence period will never extend beyond the length of the regular interval making the regular interval the maximum length of the silence period.

WG1#10 further discloses "means for triggering the transmission of a dummy block over the telecommunication connection if the length of an observed silent period reaches said maximum length without an upper-level scheduled silence-breaking transmission, or payload data having been transmitted". WG1#10 discloses sending a

dummy burst at regular intervals unless the silent period has been broken by a data transmission. (p. 3, sec. 4.6, ¶ 4).

As to **claim 11**, WG1#10 discloses “ means for transmitting dummy blocks forms part of a means for implementing Layer 1, 2 and 3 functionalities of a protocol stack governing communication over the telecommunication connection”. WG1#10 discloses the dummy burst is filled with an arbitrary bit pattern and by setting the TFCI and TPC bits, which data would be set by a Layer 1, 2 or 3 protocol (p. 13, sec. 4.6, ¶ 4).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claim 7 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **3GPP TSG RAN Working Group 1 Meeting No. 10 (Tdoc R1-00-0075)**, submitted as prior art (hereinafter **WG1#10**) in view of **3GPP TS 26.093 V4.0.0 (2002-12)** (hereinafter **TS26.093**).

As to **claim 7**, **WG1#10** discloses all of claim 6 as discussed in paragraph 5 above.

WG1#10 does not disclose "signal codec adapted to act as a source of information to be transmitted over the telecommunication connection, and said signal codec is also adapted to transmit said upper-level scheduled silence-breaking transmissions at predetermined regular intervals during otherwise silent periods in a signal to be encoded in the signal codec".

TS 26.093 discloses codec functionality for transmitting signal identifier description (SID) used for carrying comfort noise information to be used during the silence period and transmitted at regular intervals during silent periods of discontinuous transmission (DTX) (**§ A5.1.1., ¶6-7**).

WG1#10 and **TS 26.093** are analogous art because they both deal with discontinuous transmission (DTX).

It would have been obvious to one skilled in the art at the time the invention was made to use the signal codec of TS 26.093 with the method in WG1#10 in order to transmit defined SID information for comfort noise during regular intervals to break the silent period.

As to **claim 10**, WG1#10 discloses all of claim 9 as discussed above in paragraph 5.

WG1#10 does not disclose "signal codec adapted to act as a source of information to be transmitted over the telecommunication connection, and also adapted to transmit said upper-level scheduled silence-breaking transmissions at predetermined regular intervals during otherwise silent periods in a signal to be encoded in the signal codec".

TS 26.093 discloses codec functionality for transmitting signal identifier description (SID) used for carrying comfort noise information to be used during the silence period and transmitted at regular intervals during silent periods of discontinuous transmission (DTX) (§ A5.1.1., ¶6-7).

WG1#10 and TS 26.093 are analogous art because they both deal with silent periods during discontinuous transmission.

It would have been obvious to one skilled in the art at the time the invention was made to use the signal codec of TS 26.093 with the method in WG1#10 in order to transmit defined SID information as a dummy block during regular intervals in the silent period.

Allowable Subject Matter

8. **Claims 2 and 4** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIA L. SEKUL whose telephone number is (571)270-7636. The examiner can normally be reached on Monday - Friday 8:00-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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